

REMARKS/ARGUMENTS

Claims 1, 9, 17, and 18 are amended. Support for the amendments to claims 1, 9, 17, and 18 can be found in, for example, the original claim 3. Claims 3 and 10 are canceled without prejudice. Claims 1, 2, 4-9, and 11-20 are pending in the application.

In Advisory Action dated August 24, 2009, the claim amendments submitted in application's response dated August 4, 2009 were considered. Thus those claim amendments were entered, and the present response amends claims 1, 9, 17, and 18 based on the amended claims submitted in the response of August 4, 2009. Reexamination and reconsideration of the application are respectfully requested.

CLAIM REJECTIONS UNDER 35 U.S.C. § 112

Claims 1-9 and 11-20 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Applicant respectfully traverses this rejection as to amended claims 1-9 and 11-20.

The Office Action states,

"The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Although the instant specification teaches that x is in the range of $0.10 \leq x \leq 0.70$ or $0.30 \leq x \leq 0.70$, there is no support in the specification that x is $0.14 \leq x \leq 0.70$."

In response, Applicant amended "0.14" to "0.30" in claims 1, 9, 17, and 18. Support for this amendment can be found in original claim 3. Withdrawal of this rejection is thus respectfully requested.

CLAIM REJECTIONS UNDER 35 U.S.C. § 102/103

Claims 1-9 and 11-17 stand rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Kijima et al. (JP 02-180004). Claim 3 is canceled, and the rejections to that claim is thus moot. Applicant respectfully traverses the remaining rejections with respect to the amended claim 1.

Claim 1, as amended, is as follows:

A ferrite magnet powder represented by the composition formula $AFe^{2+}_{a(1-x)}M_{ax}Fe^{3+}_bO_{27}$, wherein A represents at least one element selected from the group consisting of Sr, Ba, and Pb; and M represents at least one element selected from the group consisting of Zn, Co, Mn, and Ni,

characterized in that $0.30 \leq x \leq 0.70$,

$1.5 \leq a \leq 2.2$, and

$12 \leq b \leq 17$.

Applicant respectfully submits that claim 1 patently distinguishes over Kijima at least because Kijima fails to teach or suggest a ferrite magnet powder that satisfies the amounts of Fe^{2+} , Fe^{3+} , and M required by claim 1. In particular, Kijima does not teach or suggest a ferrite magnet power represented by the composition formula " $AFe^{2+}_{a(1-x)}M_{ax}Fe^{3+}_bO_{27}$ " having the relationships " $0.30 \leq x \leq 0.70$, $1.5 \leq a \leq 2.2$, and $12 \leq b \leq 17$."

Kijima is directed to the manufacturing of an anisotropic oxide magnetic powder having a hexagonal structure. The process including blending Fe_2O_3 and Fe_3O_4 as iron oxides such that the mole ratio of Fe^{2+} and Fe^{3+} is (1-1.05):8. Zinc oxide and/or a compound that changes to zinc oxide by heating is added such that Zn is 1.0-10 mol% of Fe^{2+} , and is calcined at temperature 1150-1250° C at oxygen partial pressure of 1×10^{-4} to 1×10^{-3} atm. The calcined powder is grounded and rendered to a heat-treatment for uniformization. A W-type hexagonal system ferrite magnetic powder is thusly manufactured (Abstract).

The Actions do not assert that Kijima teaches or suggest the relationships defining the amounts of Fe^{2+} , Fe^{3+} , and M as required by claim 1. Rather, the Actions assert that Kijima teaches an example having the A, Fe^{2+} , M, Fe^{3+} , and O in amounts that satisfy the previously presented relationships ($0.10 \leq x \leq 0.70$). That example, however, does not fall within the ranges specified by the amended claim 1. The following table tabulates and compares the example in Kijima with materials having concentrations that satisfy the requirements of amended claim 1:

		Fe^{2+}	M
Kijima (JP2-180004)		1.9~2.05	the zinc oxide and/or the compound that becomes zinc oxide when heated is added in such a quantity that the Zn content becomes 1.0 to 10 mol% of Fe^{2+}
Amended Claim 1 of the present invention	$x = 0.3 \cdot a = 1.5$	1.05	0.45
	$x = 0.3 \cdot a = 2.2$	1.54	0.66
	$x = 0.7 \cdot a = 1.5$	0.45	1.05
	$x = 0.7 \cdot a = 2.2$	0.66	1.54

As shown in the above table, Kijima does not teach an example having concentrations of A, Fe²⁺, M, Fe³⁺, and O falling within the relationships defined by the amended claim 1. The Actions identify Kijima as satisfying a condition where x=0.1, and a=1.5. However, the table indicates Kijima falls outside of the required concentrations when the lower limit of x is raised to 0.3. Thus, Kijima cannot anticipate amended claim 1.

Moreover, Kijima does not teach or suggest a causal relationships between concentrations of A, Fe²⁺, M, Fe³⁺, and O and a desired result such that persons of ordinary skill in the art would be able to reach the relationships of amended claim 1 without undue experimentation. Thus, claim 1 as amended is not foreseeable in Kijima, and Kijima cannot obviate amended claim 1.

Claims 9, 17, and 18 are amended and recite the same limitations of claim 1 which, as discussed with claim 1, patently distinguish over Kijima. Those limitations include “ $0.30 \leq x \leq 0.70$, $1.5 \leq a \leq 2.2$, and $12 \leq b \leq 17$.” Thus, as with claim 1, Kijima cannot anticipate or obviate claims 9, 17, and 18.

For the above reasons, applicant suggests that the 102/103 rejections of claim 1, and claims 2 and 4-8 which depend from claim 1; claim 9, and claims 11-16 which depend from claim 9; and claim 17 should be withdrawn.

CLAIM REJECTIONS UNDER 35 U.S.C. § 103

The following rejections under 35 U.S.C. §103 are outstanding:

(1) Claims 7, 8, 11, and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kijima and further in view of Toyota (U.S. Patent No. 5,866,028).

(2) Claims 12 and 18 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kijima and further in view of Taguchi (U.S. Patent 6,258,290).

(3) Claims 19 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kijima and further in view of Taguchi and Toyota.

Applicant traverses. As discussed in the 102/103 section, Kijima does not teach or suggest all the limitations of claims 1, 9, 17, and 18. Applicant further suggests that Taguchi and Toyota cannot remedy the deficiencies of Kijima.

Concerning Toyota, that reference is generally directed to a W-type ferrite which is formulated as $\text{SrO} \cdot 2(\text{FeO}) \cdot n(\text{Fe}_2\text{O}_3)$. In the manufacturing process, carbon elements are mixed with a previously prepared mixture of SrCO_3 and Fe_2O_3 . After calcining the mixture, CaO , SiO_2 and C powders are further mixed and pulverized to have an average particle size of less than $0.06 \mu\text{m}$, then formed into a green compact body under a magnetic field and sintering the formed a product under a non-oxidizing atmosphere (Abstract). Since Toyoda does not even teach or suggest M (Zn, Co, Mn, or Ni), it cannot provided the required $\text{AFe}^{2+}{}_{a(1-x)}\text{M}_{\text{ax}}\text{Fe}^{3+}{}_{b}\text{O}_{27}$ formula to remedy the deficiencies of Kijima.

Concerning Taguchi, it is generally directed at a magnetic powder and a sintered magnet having a primary phase of a hexagonal ferrite containing A, Co or R, where A represents Sr, Ba or Ca, and R represents at least one element which may be rare earth elements including Y, and Bi, and have at least two different Curie temperatures. Taguchi likewise does not teach the required $\text{AFe}^{2+}{}_{a(1-x)}\text{M}_{\text{ax}}\text{Fe}^{3+}{}_{b}\text{O}_{27}$ formula to remedy the deficiencies of Kijima.

Thus, the cited art cannot obviate claims 1, 9, 17, and 18 because each recites the required $\text{AFe}^{2+}{}_{a(1-x)}\text{M}_{\text{ax}}\text{Fe}^{3+}{}_{b}\text{O}_{27}$ formula not taught or suggested by the cited art.

For the above reasons, the 103(a) rejections of claims 7 and 8, which depend from claim 1; claims 11-13, which depend from claim 9; and claim 18 and claims 19 and 20 depending therefrom should be withdrawn.

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Conclusion

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (310)785-4600 to discuss the steps necessary for placing the application in condition for allowance.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,
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